ADVANCES IN GERD

Current Developments in the Management of Acid-Related GI Disorders

Section Editor: Joel E. Richter, MD

Rumination Syndrome

Nicholas J. Talley, MD, PhD
Adjunct Professor of Medicine and
Supplemental Consultant
Division of Gastroenterology and Hepatology
Mayo Clinic
Rochester, Minnesota and Jacksonville, Florida

Pro Vice-Chancellor, Dean of Health,
and Professor of Medicine
University of Newcastle
Callaghan, Australia

G&H What is rumination syndrome?

NT Rumination is the regurgitation of undigested food from the stomach back up into the mouth. It is a reflex response, not a conscious decision. Rumination is normal in cows; it is not a normal part of digestion in humans. However, this syndrome does occur in some otherwise healthy individuals.

In an affected patient, rumination usually occurs for 1–2 hours after most meals. It is a chronic condition that typically occurs after every meal, every day.

G&H How common is this syndrome?

NT Although the exact prevalence and incidence of rumination are unknown, due to a lack of good data, the syndrome is thought to be relatively rare. However, in recent years, I have seen many more cases of rumination than in the past. It is unclear whether the incidence rate is actually increasing or physicians are just noticing the condition more often. Similar situations have occurred in other functional gastrointestinal disorders; if physicians start asking patients about specific symptoms and look carefully, they will notice that some disorders are more common than they originally had recognized, particularly since not all affected individuals present to a physician for care.

G&H What are the causes of rumination?

NT The causes of this condition are unknown. The belch reflex appears to become adapted. Rumination is commonly believed to be an unconscious learned disorder (ie, a behavioral issue) involving voluntary relaxation of the diaphragm.

The syndrome can begin in childhood or adulthood. In the past, rumination was reported mainly in children with disabilities, typically mental retardation. As mentioned previously, rumination has been largely unrecognized in adults until relatively recently when physicians began to take more careful histories. It is still a common misconception that rumination occurs only in cows and children with mental retardation.

G&H When diagnosing patients, how is rumination differentiated from other disorders, such as vomiting syndromes and gastroesophageal reflux disease?

NT Patients with rumination are frequently misdiagnosed, and they often misinterpret their own symptoms, with their descriptions of their symptoms being quite different than what is actually happening. Classically, a patient with rumination presents with "recurrent vomiting." Other patients present with "regurgitation" or a label of gastroesophageal reflux disease. Unless a detailed history is obtained, the physician will likely conclude that the patient has gastroparesis or another vomiting syndrome (eg, an eating disorder), and he or she will prescribe diagnostic tests and treatments for vomiting that will not help the patient.

Therefore, it is important to ask patients to explain their symptoms in a little more detail. When patients with rumination are asked to specify what they mean by "vomiting," they often state that food or fluid that is undigested and tastes good comes back up into their mouth, and they either spit it out or reswallow it. Patients often assume that vomiting refers to gastric contents coming up. However, in the classic presentation of rumination, these patients are not experiencing actual vomiting. Vomiting requires forceful ejection of stomach contents; when

vomiting, patients cannot retain food in their mouth, as they can with rumination.

G&H Are any diagnostic tests helpful for establishing diagnoses in more difficult cases?

NT The key to diagnosing rumination is obtaining a detailed history. In the absence of a good history, there is an excellent chance that the diagnosis will be missed.

In this patient population, there are no routine diagnostic tests of any value. An esophagogastroduodenoscopy may be performed to make sure that the patient does not have esophagitis (which may be identified in a subset of patients); likewise, 24-hour esophageal pH testing may be used to identify pathologic acid reflux (which may be identified in approximately 50% of patients, typically in the first hour after a meal, with rapid changes in pH reflecting food reswallowing). However, these tests diagnose gastroesophageal reflux disease, not rumination, and these patients will not respond to antireflux therapy.

In contrast, gastroduodenal manometry is of diagnostic value in rumination, but it is invasive. Rumination (tall R waves) can be seen in gastric manometry tracings in approximately 40% of patients. However, this test is not routinely administered; it is a specialized test that is available in very few centers.

G&H How effective is treatment for rumination?

NT Because rumination is likely behavioral in origin, it can be unlearned, which is the most effective method for its management. Diaphragmatic rebreathing training teaches patients to relax their diaphragm during and after meals; because rumination cannot occur in this setting, it is eventually extinguished (unlearned). This technique is relatively easy to learn and to perform. Usually, a behavioral psychologist helps teach the technique to patients, who must then apply it at appropriate times, typically from the beginning of meals. This technique has been effective in most patients.

G&H Do medical or endoscopic therapies have any role in the management of rumination?

NT Pharmacologic therapy is of no value in these patients, as far as I am aware; antireflux therapy does not have an effect. The effect of fundoplication on this syndrome is unclear, as it has not been tested.

G&H Does rumination cause any lasting damage to the esophagus or stomach?

NT I am not aware of any particular damage that results in these patients, except for esophagitis in a minority of cases, and occasionally weight loss in adolescent patients. Certainly, rumination can be a nuisance and can cause concern, but I have treated patients who have had this syndrome for many years, and they generally appear to be completely healthy otherwise.

G&H What are the next steps in this area?

NT The focus should be on educating physicians about rumination and improving their ability to recognize the condition. Rumination is easy to diagnose if physicians know what to look for; establishing a diagnosis by asking a few simple questions takes only a few minutes. It is important not to misdiagnose patients, as good management of rumination is available.

More data are also needed. As previously mentioned, there has been some work in related motility issues (ie, manometry tracings in these patients), but because of the relative rarity of the condition and the difficulty in collecting patients, there remain many unanswered questions. In the future, it would be ideal to collect a large number of patients with rumination to learn more about the condition. However, this type of research has not yet been conducted, and there does not appear to be any interest in doing so in the near future, as rumination has not grabbed the attention of funding bodies or even the gastroenterology community. Nevertheless, from a clinical practice perspective, it is very satisfying to see patients experience relief of their symptoms.

Suggested Reading

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